

Internation PCT/IB 03/05497

A. CLASSIFICATION OF SUBJECT MATTER IPC 7 G06F1/32 G11B7/00 G11B33/12 According to International Patent Classification (IPC) or to both national classification and IPC B. FIELDS SEARCHED Minimum documentation searched (classification system followed by classification symbols) IPC 7 G06F G11B Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched Electronic data base consulted during the International search (name of data base and, where practical, search terms used) EPO-Internal, WPI Data, PAJ C. DOCUMENTS CONSIDERED TO BE RELEVANT Category ' Citation of document, with indication, where appropriate, of the relevant passages Relevant to dalm No. Α US 5 625 615 A (DENTE JAMES J ET AL) 1 - 1229 April 1997 (1997-04-29) column 5 - column 7 Α EP 1 221 645 A (HEWLETT PACKARD CO) 1-12 10 July 2002 (2002-07-10) column 3 - column 4 US 5 355 502 A (SCHOWE LESTER ET AL) Α 1-12 11 October 1994 (1994-10-11) column 3 - column 4 Α US 5 167 024 A (HANLON MIKE S ET AL) 1-12 24 November 1992 (1992-11-24) column 7 - column 8 -/--Further documents are listed in the continuation of box C. X Patent family members are listed in annex. Special categories of cited documents ; *T* later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention *A* document defining the general state of the art which is not considered to be of particular relevance "E" earlier document but published on or after the international filing date "X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone "L" document which may throw doubts on priority dalm(s) or which is cited to establish the publication date of another datalon or other special reason (as specified) 'Y' document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art. O' document referring to an oral disclosure, use, exhibition or other means document published prior to the international filling date but later than the priority date claimed "&" document member of the same patent family Date of the actual completion of the international search Date of mailing of the international search report 1 March 2004 12/03/2004 Name and mailing address of the ISA Authorized officer European Patent Office, P.B. 5818 Patentlaan 2 NL – 2280 HV Rijswijk Tet. (+31-70) 340-2040, Tx. 31 651 epo ni, Fax: (+31-70) 340-3016

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	tion) DOCUMENTS CONSIDERED TO BE RELEVANT		
Category °	Citation of document, with indication, where appropriate, of the relevant passages	1	Relevant to claim No.
A	US 5 521 896 A (BAJOREK CHRISTOPHER H ET AL) 28 May 1996 (1996-05-28) column 5 - column 6		1-12
١	US 6 115 337 A (TAKAGI HIROHITO ET AL) 5 September 2000 (2000-09-05) the whole document		1-12
А	US 2002/169928 A1 (KIMURA TETSURO ET AL) 14 November 2002 (2002-11-14) the whole document		1-12
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Internation lipporation No PCT/IB 03/05497

Patent document cited in search report		Publication date		Patent family member(s)		Publication date
US 5625615	Α	29-04-1997	NONE		·	
EP 1221645	Α	10-07-2002	US	2002087225	A1	04-07-2002
			EP	1221645		10-07-2002
			JP	2002287859		04-10-2002
US 5355502	Α	11-10-1994	NONE		·	
US 5167024	Α	24-11-1992	AU	629019	B2	24-09-1992
			AU	6016890	Α	14-03-1991
			CA	2024552		09-03-1991
•			DΕ	4028175	A 1	21-03-1991
			GB	2235797	A,B	13-03-1991
			HK	36394		29-04-1994
			JP	3171317		24-07-1991
			SE	9002838		09-03-1991
			SG	7294	G 	10-06-1994
US 5521896	Α	28-05-1996	บร	5452277		19-09-1995
			US	5544138		06-08-1996
	•		JP	2557202		27-11-1996
			JP 	7210975	A 	11-08-1995
US 6115337	Α	05-09-2000	DE	4445012		20-06-1996
			DE	4445023		20-06-1996
			CN	1132908		09-10-1996
•			DE	59510107		18-04-2002
			EP Es	0717406		19-06-1996
			JP	2173936		01-11-2002
			US	8273295 5943307		18-10-1996
			CN	1132910		24-08-1999
			DE	59509426	л, D П1	09-10-1996 23-08-2001
			EP	0717408		19-06-1996
			ES	2160659		16-11-2001
			ĴΡ	8235772		13-09-1996
			ŬS	5995460		30-11-1999
US 2002169928	A1	14-11-2002	JP	2001100921	A	13-04-2001
			CN	1290893		11-04-2001
			EP	1089159		04-04-2001
			TW	484052		21-04-2002
			US	6415359		02-07-2002